EVAR, the Vascular Surgeon and Value to the Health Care System

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Potential View of the Health Care Administrator of Vascular Surgery

- Poor Payor Mix
  - > 70% of patients Medicare
  - Pts < 65 frequently Medicaid

Value of the Vascular Surgeon to the Health Care System

1. Direct Vascular Surgery P&L
2. Vascular Surgery is an enabling service
   Every hospital wants a vascular surgeon on staff
   - Cardiology
   - Ortho/Neuro surgery spine exposure
   - Oncology
   - Urology
3. Vascular Surgery Case Mix Index

Presenter Disclosure Information
Richard J Powell, MD
FINANCIAL DISCLOSURE:
Consultant
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Aastrom
Boston Scientific
DSMB
Levant
EV3
CLEVER –NIH NHLBI
Current Grants/Research Support:
NIH NHLBI

Potential View of the Health Care Administrator of Vascular Surgery

- Poor Payor Mix
  - > 70% of patients Medicare
  - Pts < 65 y/o frequently Medicaid
- High cost procedures
  - EVAR / TEVAR

1. Direct Vascular Surgery P &L
- Dartmouth-Hitchcock Medical Center
- Fiscal Years 2010-2015
- 5,942 OR; 3,850 IR; 42,871 office visits, 72,030 vascular studies

Value of the Vascular Surgeon to the Health Care System

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Downward trend in both physician and hospital revenue when adjustments are made for volume and inflation.

There is a downward trend over time in both physician and hospital revenue when adjustments are made for volume and inflation.

Trend toward decreasing physician revenue, but no similar pattern for hospital revenue (crude data).

EVAR Net Financial Margin

Grafts & Implants - 52%

Other Technical Costs - 48%

- Supplies
- Technical Overhead
- Statistically Allocated
- Technical Direct

Total Margin
Impact of Combined Technical and Professional Revenue on Hospital Margin

Margin / Case $

Cardiac Surgery  
Neonatology  
Neurosurgery  
Hospital Medicine  
Vascular Surgery  
General Surgery  
Thoracic Surgery  
Radiation Oncology

Thousands

• 300 “off service” patients over 4 yrs
  – 52% spine exposure
  – 14% vascular control no hemorrhage
  – 14% vascular control with hemorrhage
  – 19% vascular reconstruction
• Generated ~1400 RVU’s/year

Tonita et al., JAMA Surg 2016

2. Vascular Surgery: An Enabling Service Line

3. Case Mix Index

Case Complexity → Case Mix Index (CMI)
Reflects diversity & complexity of population

CMI affects hospital wide Medicare reimbursement

Dartmouth – Hitchcock: each increase in 0.01 in CMI results in 3,000,000 $ increase in annual revenue

Centers for Medicare and Medicaid Services, 2010

3. Case Mix Index

Case Complexity → Case Mix Index (CMI)

Centers for Medicare and Medicaid Services, 2010

3. Case Mix Index

Case Complexity → Case Mix Index (CMI)

Centers for Medicare and Medicaid Services, 2010

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Case Complexity → Case Mix Index (CMI)

Centers for Medicare and Medicaid Services, 2010
3. Case Mix Index

3. Case Complexity → Case Mix Index (CMI)

<table>
<thead>
<tr>
<th>Specialty</th>
<th>CMI</th>
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<tbody>
<tr>
<td>Cardiac Surgery</td>
<td>5.56</td>
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<tr>
<td>Vascular Surgery</td>
<td>2.81</td>
</tr>
<tr>
<td>Cardiology</td>
<td>1.87</td>
</tr>
</tbody>
</table>

Hospital CMI : 2.13

Conclusions

2. Focus on technical cost reduction
3. Favorable vascular surgery CMI improves hospital wide reimbursement from CMS
4. wRVUs can measure productivity but are not a good measure of value of the vascular surgeon